

Tuesday, 17 April 2007

Neville Lord  
Chief Advisor  
Network Branch  
Commerce Commission  
WELLINGTON

Dear Neville,

**Material for UBS Reconsideration Workshop 20 April – Components of the Wholesale UBS Service and Retail Broadband Service**

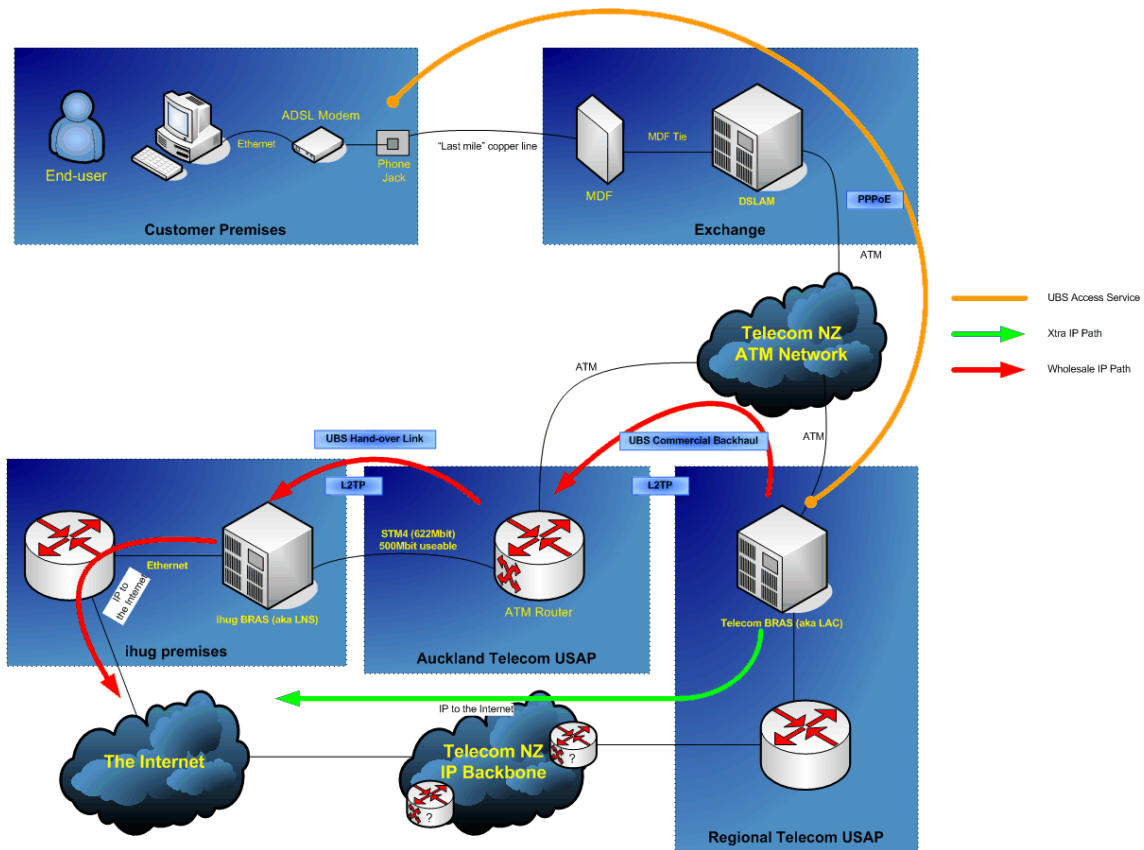
1. In its agenda for the 20 April workshop on the reconsideration of Decision 582 the Commission requests that parties:
  - Use illustrations, such as network diagrams, to identify the relationships between and boundaries of these components.
  - Identify which activities/costs are included in each component, including what is included in the ISP charge.
  - Identify what costs are saved (or incurred) by the access provider in providing the regulated wholesale UBS service, rather than the retail service.
  - Explain how virtual paths are dimensioned in relation to the regulated UBS service, and if this differs from how virtual paths are dimensioned for other broadband users.

**Components of Wholesale UBS and Retail Broadband**

2. The diagram below shows the components of the wholesale UBS and retail broadband system from the end user to ihug's upstream providers (the internet).
3. For the wholesale UBS service the components are:
  - The end user with their computer and modem in their premises, up to the Telecom demarcation point.
  - The UBS service over the copper line through the DSLAM in the local exchange, then over the shared VP (now known as the LAP – Local Aggregation Path) to the B-RAS (Broadband Remote Access Server or LAC – Local Area Controller), elsewhere referred to as the first ATM switch, at the USAP (Unbundled Service Aggregation Point). This service is delivered as PPPoA and currently costs \$27.55 excluding GST per customer.
  - The commercial backhaul service from the USAP to a second handover USAP (in Auckland for both ihug and CallPlus). This service is delivered as

L2TP over ATM and is charged according to a distance based rate card, varying between zero (at the handover USAP) to a maximum of \$2.10 plus GST per customer.

- The UBS handover link from the Telecom handover USAP to the ISPs premises. This service is delivered as L2TP over ATM and is charged at \$3,880 per STM-1 or \$8,000 per STM-4 link (excluding GST). All charges referenced in this section are monthly recurring charges.
4. For the retail service the initial components are the same as the wholesale UBS service, up to the first regional USAP. From the regional USAP Telecom have to deliver the service over essentially the same network from the region to connect to the upstream internet in Auckland (for international at least). This is delivered as IP rather than ATM, and may use different network elements (Telecom do not disclose) but must be delivered between the same two end points.



#### Activities and Costs of each component.

5. The majority of the activities and cost of the components were established and agreed in Decision 582. The issue of contention is the costs that are avoided by Telecom of getting traffic from the regional USAP (or first ATM switch) to the upstream internet, when a customer's service is supplied by an ISP using UBS rather than by Telecom directly.
6. The simplest and most relevant proxy for this would be the prices that Telecom charge ISPs to backhaul traffic from the regional USAP to the ISPs network. For Ihug's network this was estimated in June 2006 at \$0.80 per customer for the

commercial backhaul service, and another \$1.12 per customer for the ATM handover links.

7. In its cross submission Telecom argued that the ISP charge of \$8.89 is an historical figure that covered the costs associated with both the core ISP service and the ISP backhaul service provided ISPs at the time the figure was set.<sup>1</sup>
8. In our view this claim is incorrect. As Telecom states, the origin of the ISP charge was from the days of the Jetstream Partner Profile (JPP), where Telecom provided a broadband service to the end user (and billed the end user directly for this service), in conjunction with the ISP providing the "ISP services" (and billing the end user directly for these).
9. Initially the retail price of the ISP services was \$20 including GST, but a subsequent price reduction by Telecom retail to \$10 forced all ISPs to match this lower price. Hence the \$8.89 excluding GST. These ISP services included authentication, email and hosting services, but they do not include backhaul, as Telecom claim.
10. In order for ISPs to participate in JPP, the ISPs were required to purchase from Telecom a wholesale service called Fast IP or Fast IP Direct. This service provided a link between Telecom and the ISP to carry low volume authentication, email and hosting traffic to the ISP. The September 2000 Service Delivery Agreement for Fast IP Access Service that Telecom had with ihug is attached.
11. If the ISP chose Fast IP Direct they did not deal with any other data traffic. This was entirely provided by Telecom, who also got all the revenue from the customer for the broadband service and all usage based charges. In contrast, if the ISP chose the Fast IP service, they were required to carry all data traffic and provide upstream connectivity, but the ISP got no more revenue for taking this option, so it was not the preferred option.
12. The Telecom charge for the Fast IP service was a fixed monthly price for the access circuit (depending on its size), plus a per customer virtual port charge. For larger customer numbers the virtual port charge was \$2 per customer. For an STM-1 access circuit (required for larger volumes of Fast IP traffic) the Telecom charge was \$3880 per month. For a smaller 128kbps access circuit (required for Fast IP Direct) the Telecom charge was \$570 per month. Note that all such charges are from ihug's agreements with Telecom.
13. Nowhere in Telecom's Fast IP documentation (attached) was there any mention of the term "backhaul", nor anything similar. There was no concept of any distance based charging like today's UBS backhaul. The charges were simply labelled a virtual port charge and an access circuit.<sup>2</sup> For the preferred Fast IP Direct, the access circuit did not even carry the customer's data traffic. But more significantly, the ISP did not get any revenue from the customer for data usage; that revenue all went to Telecom.

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<sup>1</sup> Telecom New Zealand Limited, *Cross Submissions in respect of the Commerce Commission's Draft Reconsideration of Decision 582 – Public Version*, 21 March 2007, para 20.

<sup>2</sup> Telecom New Zealand Service Delivery Agreement for Fast IP Access Service, Schedule 2 Fees.

14. Further, Telecom's claim in para 8b of its cross submission that the ISP charge includes the cost an ISP has of transporting the data within its network is incorrect. The \$8.89 ISP charge was the same for both Fast IP and Fast IP Direct, but in the case of Fast IP Direct, Telecom did all the data transporting and the ISP did not have to carry any customer data traffic beyond that required for authentication and email. The ISP charge did not vary at all with customer usage, from the lightest user to the heaviest, in contrast with Telecom's revenue, which increased significantly with higher usage plans and overage charges.
15. We reiterate the point from our submission, dated 13 March, that although the interconnect costs are not necessarily avoided by Telecom, an equally efficient competitor should be able to use the bitstream access service to effectively compete with Telecom. As all ISPs must interconnect with Telecom to provide retail services, they face a cost disadvantage compared with Telecom. If an interconnect component was not subtracted from the imputed retail price an equally efficient ISP would not be able to compete.
16. This view was further supported by the Commission in a recent submission to the Finance and Expenditure Committee where it stated:

*...in Ireland, the regulator has indicated that the relevant benchmark for assessing retail costs is a 'similarly efficient operator', which is defined as an operator who has the same cost function as the incumbent but may operate on a lower scale and may incur costs that the incumbent does not face<sup>3</sup>*

### **Dimensioning Rules**

17. Regarding the dimensioning of the Local Aggregation Path (LAP – otherwise known as the shared VP), Telecom stated in the Service Specification in its May 2006 High Speed Internet Service Customer Briefing (attached): "Minimum Data Throughput – the network is designed to provide to any customer a minimum downlink average throughput of 32kbps during 99.9% of all 15 minute periods on demand. Actual experience is generally much better than this"<sup>4</sup>
18. While Telecom has not provided any such written statement on the dimensioning of the commercial backhaul service, we understand that Telecom has stated that backhaul is dimensioned in the same manner as the Local Aggregation Path.
19. Handover links were dimensioned to 24kbps per provisioned customer, but Telecom now offer ISPs the choice of 16, 24 or 32kbps.
20. While ihug has a number of issues with UBS dimensioning rules and the impact of these on the customer experience, these issues do not impact the pricing issues currently under debate.

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<sup>3</sup> Commerce Commission, *Submission to Finance and Expenditure Committee on the Telecommunications Amendment Bill 2006*, 11 August 2006, footnote 19.

<sup>4</sup> Telecom New Zealand, *High Speed Internet Service – Customer Briefing*, 17 -19 May 2006, p14.

## **Conclusion**

21. If you have any questions about this response, please contact David Diprose (021 275 0003, [davidd@staff.ihug.co.nz](mailto:davidd@staff.ihug.co.nz)).

Yours sincerely,

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Public Policy